

ABSTRACT

A tilt sensor for detecting information related to a tilt of an object to a reference plane is disclosed. The tilt sensor includes a diffraction element disposed that diffracts an incident light at 5 diffraction efficiency depending on the incident angle, and a photo detector that detects a diffraction light diffracted by said diffraction element and outputs an photoelectric signal. Since 10 the diffraction efficiency of the diffraction element changes as the incident angle changes, the intensity of the diffraction light from the diffraction element changes. As a result, the photoelectric signal output from the photo detector contains the information 15 related to the tilt of the object.